

REMARKS

This amendment is submitted in response to the Office Action mailed June 26, 2003. Favorable reconsideration of the application is respectfully requested in view of the amendments and the following remarks.

Claims 1-7 have been amended to state that the algicide is present in an amount of from 5.85% to 20.10% by weight of the treatment. Basis is found at page 6, line 6, where the range of copper sulfate (the preferred algicide) is given as 5.85% to 20.10%.

Amended claim 2 and new claims 8-10 state that the treatment further includes a surfactant. Basis is found at page 5, lines 26-28.

New claims 11-13 state that the clarifier is present in an amount of less than 12.55% by weight of the treatment. Basis is found at page 6, lines 11 and 12, where the combined range of aluminum potassium sulfate and aluminum sulfate is given as 0.00% to 12.55%. At page 5, lines 11-12, the aluminum sulfate and the aluminum potassium sulfate are described as clarifiers.

New claims 14-20 state that the treatment does not include a sanitizer. Basis is found at page 6, where the preferred ingredients are listed without including a sanitizer. Additionally, none of the twelve examples at pages 7-9 include a sanitizer. The specification also describes that the treatment is intended for use with a sanitizer, for example, at page 5, lines 13-25 and page 11, lines 14-24, where the function of the sanitizer reducer/enhancer is described.

Claims 1-7 were rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Rounds et al (US 6,149,821). Applicant respectfully submits that the amended claims are novel and nonobvious in view of the cited patent. Rounds et al. is concerned with a water purification system containing primarily an oxidizer/clarifier, a biocide, and a buffer. An algicide is only an optional ingredient in the system (col. 8, lines 56-64), and the amount of algicide is limited to about 1-2% (col. 9, lines 14-15). Rounds et al states that the optional ingredients are only added so long as they do not adversely affect the existing water balance (col. 8, lines 56-64), and the patent states that a balancing process is required when a composition contains multiple chemicals (col. 1, lines 29-41).

In contrast to Rounds et al, amended claims 1-7 state that the algicide is present in an amount of from 5.85% to 20.10%. This amount is at least about triple the amount allowed in the Rounds et al system. In view of the concern in the Rounds et al patent of not adversely affecting the water balance, Applicant respectfully submits that it would not be obvious to add 5.85% to 20.10% algicide to the system.

New claims 8-10 state that the treatment further includes a surfactant. There is no suggestion in either the Rounds et al. or the Denkewicz, Jr. et al patent to add a surfactant to the composition.

New claims 11-13 state that the clarifier is present in an amount of less than 12.55% by weight of the treatment. In contrast, Rounds et al require that the system contain from 38% to 64% of the oxidizer/clarifier (col. 3, lines 36-38). This amount is more than triple the maximum amount allowed in claims 11-13. In view of the Rounds et al concern with not adversely affecting the water balance, Applicant respectfully submits that it would not be obvious to use such a small amount of clarifier in the Rounds et al system.

New claims 15-20 state that the treatment does not include a sanitizer. In contrast, the purpose of the Rounds et al patent is to provide a system including a sanitizer (called a "biocide"), an oxidizer/clarifier and a buffer. Clearly, it would not be obvious to remove the sanitizer from the Rounds et al system.

Claims 2, 4 and 5 were rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Denkewicz, Jr. et al (US 6,217,780). Applicant respectfully submits that the amended claims are novel and nonobvious in view of the cited patent. With respect to claim 2, Denkewicz, Jr. et al neither teaches nor suggests adding a surfactant to the composition. With respect to claims 4 and 5, Denkewicz, Jr. et al neither teaches nor suggests adding a sanitizer reducer/enhancer to the composition. As described by Applicant at page 5, lines 13-25, the sanitizer reducer/enhancer binds the free sanitizer, creating a stabilized environment for the sanitizer to be interconnected with the treatment composition. Examples of suitable reducer/enhancers include anionic surfactants, sodium carbonate, sodium bicarbonate, calcium carbonate, sodium chloride, aluminum sulphate, aluminum potassium sulphate and citric acid. There is

no suggestion in the Denkewicz, Jr. patent of such a material, or any need for such a material.

Claims 1-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Rounds et al and Denkewicz, Jr. et al. As discussed above, Applicant respectfully submits that it would not be obvious to add 5.85% to 20.10% algicide (recited in claims 1-7) to the system disclosed in the Rounds et al. patent. Denkewicz, Jr. et al neither teaches nor suggests using a pH stabilizer as recited in claims 1, 3, 6 and 7. An advantage of the Denkewicz, Jr. et al composition is that it does not require the addition of pH stabilizers or stabilizers to prevent degradation of the biocide on exposure to sunlight (col. 2, line 49 to col. 3, line 1). Therefore, Applicant respectfully submits that it would not be obvious to add a pH stabilizer to the composition.

With respect to claim 2, Rounds et al and Denkewicz, Jr. et al neither teach nor suggests adding a surfactant to the composition.

With respect to claims 4, 5, 6 and 7, Denkewicz, Jr. et al neither teaches nor suggests adding a sanitizer reducer/enhancer to the composition. Applicant respectfully submits that it would not be obvious to add a sanitizer reducer/enhancer to the Denkewicz, Jr. et al composition, because a purpose of the patent is to provide a composition that works using reduced chlorine (sanitizer) levels (col. 3, lines 51-65). If the amount of sanitizer is reduced, this would reduce any need for using a sanitizer reducer/enhancer in the composition. The reduction in the level of the sanitizer suggests against adding a sanitizer reducer/enhancer; clearly, there is no suggestion in the patent of any need for a sanitizer reducer/enhancer. The Rounds et al patent discloses materials (sodium carbonate and sodium bicarbonate) that can function as a sanitizer reducer/enhancer, but there is no mention of such an effect; the materials are used as pH adjusters in the patent. Therefore, it would not be obvious to add such a material to the Denkewicz, Jr. et al composition.

In view of the above, Applicant respectfully submits that the claims are patentable over the cited patents.